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Sporidesmiella corniformis sp. nov. from China

CONG-CONG AI[1], JI-WEN XIA[1], XIU-GUO ZHANG[1],
YUN GENG[2*A], LI-GUO MA[3*B]

[1] *Shandong Provincial Key Laboratory for Biology of Vegetable Diseases and Insect Pests, College of Plant Protection, Shandong Agricultural University, Taian, Shandong, 271018, China*
[2] *Biotechnology Research Center, Shandong Academy of Agricultural Sciences, Jinan, Shandong, 250100, China*
[3] *Shandong Key Laboratory of Plant Virology, Institute of Plant Protection, Shandong Academy of Agricultural Sciences, Jinan, Shandong, 250100, China*

*CORRESPONDENCE TO: [A]*tagy009@163.com*, [B]*maliguo809@163.com*

ABSTRACT—A new species, *Sporidesmiella corniformis*, is described and illustrated from specimens collected on decaying branches in China. This fungus is characterized by clavate to cuneiform, 2-distoseptate, pale brown conidia with 4–8 short horns.

KEY WORDS—anamorphic fungi, hyphomycete, *Melanommataceae,* taxonomy

Introduction

Numerous microfungi collected in tropical and subtropical forests in China have recently been reported (Ma & al. 2016a, b). In our continual mycological surveys on wood-inhabiting fungi in China, an anamorphic fungus with morphological features typical of *Sporidesmiella* Kirk (1982) was collected. However, this fungus is morphologically different from the currently described *Sporidesmiella* species and is therefore proposed as new.

Specimens are deposited in the Herbarium of the Department of Plant Pathology, Shandong Agricultural University, Taian, Shandong, China (HSAUP) and the Mycological Herbarium, Institute of Microbiology, Chinese Academy of Sciences, Beijing, China (HMAS).

Materials & methods

Samples of partially decomposed woody debris collected were placed in separate polyethylene bags for transport to the laboratory. Samples were incubated, examined, and processed periodically following the methods described in Ma & al. (2012a). Conidia and conidiophores were measured and photographed using a DP 27 camera attached to a Olympus BX 53 microscope equipped with a 60× oil immersion objective. Then photographic plate was prepared using Adobe Photoshop CS5.

Taxonomy

Sporidesmiella corniformis L.G. Ma, C.C. Ai & X.G. Zhang, **sp. nov.** FIG. 1

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Differs from *Sporidesmiella cornuta* by its bigger, 2-distoseptate conidia with much shorter, more numerous horns; and from *S. coronata* by its 2-distoseptate, wider conidia with longer, more numerous horns.

TYPE: China, Yunnan Province, Xishuangbanna National Forest Park, on dead branches of an unidentified broadleaf tree, 12 Oct. 2011, L.G. Ma (**Holotype**, HSAUP H2058; **isotype**, HMAS 146151).

ETYMOLOGY: *corniformis*, referring to the conidial shape.

COLONIES on natural substrate effuse, brown to dark brown, hairy. Mycelium partly superficial, partly immersed in the substrate, composed of septate, pale brown, smooth, 1.5–3.0 µm diam. hyphae. CONIDIOPHORES macronematous, mononematous, simple, unbranched, erect, straight to slightly flexuous, cylindrical, smooth, thick-walled, brown to dark brown, 4–11-septate, 55–175 × 3.5–5 µm. CONIDIOGENOUS CELLS integrated, terminal, holoblastic, monoblastic, brown, cylindrical, smooth, thick-walled, percurrently extended, with 0–5 cylindrical extensions towards the apex. Conidial secession schizolytic. CONIDIA acrogenous, solitary, clavate to cuneiform, thick-walled, pale brown, smooth, 2-distoseptate, 21–35 µm long, 11.5–17.0 µm wide at the apex, 2.5–3.5 µm wide at the truncate base, apex with 4–8 short horns 2.0–7.5 µm long; cell lumina reduced, less so in the basal cell, the basal cell darker and basal septum convex and deeply pigmented.

COMMENTS—*Sporidesmiella* was erected by Kirk (1982) with *S. claviformis* P.M. Kirk as the type species. The genus is characterized by acrogenous, solitary, distoseptate conidia seceding schizolytically from integrated, terminal, monoblastic, percurrent, or rarely sympodially extended conidiogenous cells on macronematous, mononematous, solitary conidiophores. Although it shares some resemblance to *Coronospora* (Ellis 1971), the latter genus is distinguished by polyblastic, sympodial, cicatrized conidiogenous cells bearing euseptate conidia. Both Yanna & al. (2001) and Ma & al. (2012b) reviewed *Sporidesmiella*

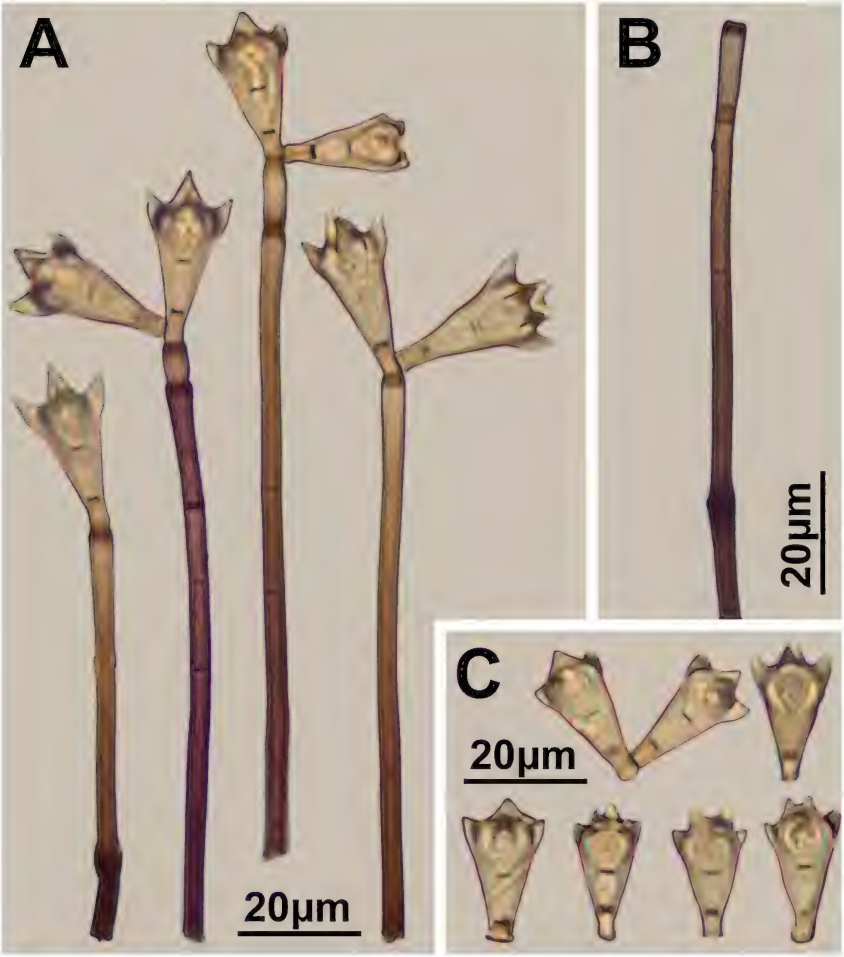

Fig. 1. *Sporidesmiella corniformis* (holotype, HSAUP H2058). A. Conidiophores, conidiogenous cells and conidia; B. Conidiophore with conidiogenous cell; C. Conidia.

and provided a key to the accepted species. Hitherto, 38 species have been discovered, of which 12 were described from China.

Sporidesmiella corniformis is most similar to *S. cornuta* Kuthub. & Nawawi and *S. coronata* (B. Sutton) P.M. Kirk. *Sporidesmiella cornuta* differs by its conidia that are 2–3-distoseptate, cylindrical to cuneiform, 24–29 µm long and 8–13 µm diam. towards the apex and 4–5 µm diam. at the base and with (2–)3(–4) acuminate horns that are 10–24 µm long (Kirk 1982). *Sporidesmiella* *coronata* can be separated by its conidia, which are 2–3-distoseptate, 6–7.5 µm diam. towards the apex and with 4 short (≤4 µm) horns (Kuthubutheen & Nawawi 1993).

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